

ZERO CONFIGURATION NETWORKING

ABSTRACT

The Routing Information Protocol [RIP] is extended to include a network-wide unique interface identifier [UID] that allows the zeroconfiguration multiple router [R1, R2] network to detect subnet conflicts. Detected conflicts are automatically repaired by the respective routers assigning and advertising new subnet mappings. The extended, Zeroconfiguration Routing Information Protocol [ZRIPI] employs a NORMAL/CHANGE status flag associated with each routing table entry to resolve ambiguity between normal routing advertisements and conflict notifications. Address re-mapping and name-to-address resolution is provided to support both network address translation [NAT] and virtualized address paradigms.